# UNIVERSAL PRECAUTIONS



**Health Care Quality Units** 

#### Disclaimer

- The information presented to you today is intended to increase your ability to understand universal precautions.
- The information is not intended to replace medical advice.
- If you are in need of medical advice, please contact your physician.



## Objectives

- By actively participating, the learner will be able to:
  - Define Universal Precautions.
  - List elements required for the spread of infection.
  - Define routes of transmission by infected agents.
  - List protective barriers to prevent transmission of infected agents.



## History

- Developed in 1987 by the Center for Disease Control in the United States.
- Mandated into standards in 1991 by the Occupational Safety Health Administration (OSHA) after increased public concerns with the AIDS and Hepatitis B virus (HBV).



## Definition

Universal precautions are simple infection control measures that reduce the risk of transmission of blood borne pathogens through exposure to blood or body fluids.



## Why Follow Universal Precautions?

- All blood and body fluids are potentially infectious and capable of transmitting blood borne diseases.
- Universal Precautions protect the caregivers and the consumers from disease and illness.



### Chain of Infection

- The spread of infection requires 3 elements:
  - Source of infecting organisms.
  - A susceptible host.
  - A means of transmission for the organism.



### Sources of Infection

- Any person with an acute or chronic disease.
- A person in the incubation period of the disease.
- An inanimate object in the environment that has become contaminated.



#### Host

- A person who may develop the disease.
- A person who may not develop the disease but be a carrier of the disease.
- A person who may be resistant or immune to the infectious agent and not develop the disease.



## Transmission Routes

- Contact
- Airborne
- Vehicle
- Vector borne



#### Contact Transmission

#### Direct

 Direct physical transfer between susceptible host and an infected person.

#### Indirect

 Personal contact of the host with a contaminated object.

#### Droplet

 Direct or indirect transmission of infected droplets onto the mucosa (eyes, nose, mouth) of a host.



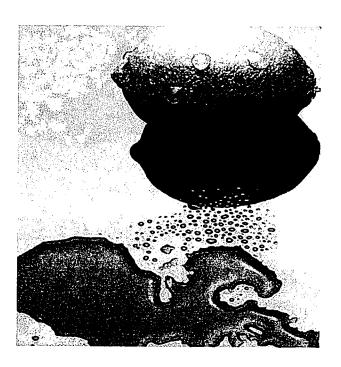
### Airborne Transmission

Infected droplets or dust particles are inhaled by the host.



#### Vehicle Transmission

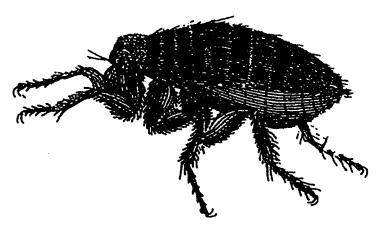
- Contaminated food
- Contaminated water
- Contaminated drugs
- Contaminated blood





#### Vector Borne Transmission

The transfer of organisms from a living agent to the host, usually by means of biting (e.g., ticks, fleas, lice).





## Application

- Apply universal precautions in the workplace whenever workers are exposed to blood and body fluid excretions including:
  - Semen
  - Vaginal secretions (menses)
  - Drooling (saliva)
  - Nasal discharge
  - Feces
  - Vomit



## Protective Barriers

- Gloves
- Mask
- Goggles
- Gowns
- Hand washing



## Hand Washing

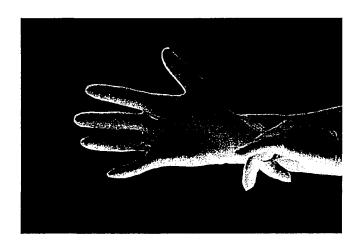
 Proper hand washing consists of washing your hands with soap under running water for at least 30 seconds, then drying.

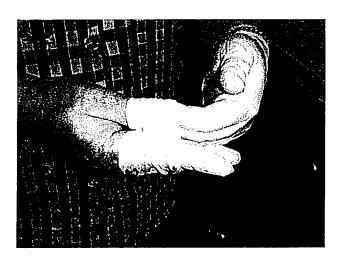




#### Gloves

- Should be worn whenever there is the potential to be exposed to blood/body fluids.
- Are not a substitute for hand washing!







## Blood/Body Fluid Exposure

- A reportable exposure occurs when you:
  - Accidentally receive a puncture wound from a sharp object or needle that has previously been exposed to blood/body fluids.
  - Get blood or saliva splattered onto mucous membranes of nose, mouth or eyes.



## Blood/Body Fluid Exposure

- Become contamination on open skin surfaces (e.g., cuts, abrasions, blisters, open rashes) with blood, vomitus, saliva, or urine.
- Have a large blood spill on intact skin or have a prolonged exposure.



## Protocol For Exposure

- Immediately following the exposure, wash needle sticks or cut skin with soap and water.
- Irrigate the eyes with clean water.
- Immediately rinse the mouth with mouthwash or alcohol.



## Protocol For Exposure

- Report exposure to your Supervisor.
- File the appropriate report.
- Seek medical evaluation and treatment when indicated.



# Protocol For Exposure

- Double bagging of soiled wastes.
- Separate washing of soiled linens in hot soapy water.
- Using disinfectants on soiled surfaces.



## Employer Obligation For Employee

- Offer Hepatitis (HBV) vaccinations to employees.
- Provide protective equipment to employees.
- Have access to an appropriate facility for evaluation and treatment of employees.
- Offer employees yearly updates of Hepatitis vaccinations.



## Congratulations

You are now ready to take the post test.

Once you have submitted the post test, you will receive a certificate for completing the course via e-mail or mail. Just make sure all information is entered correctly so you can receive your certificate.



#### Resources

- Personal MD. Universal Precautions Against Infectious Diseases (1-3). Retrieved August 5, 2003 from: <a href="http://www.personalmd.com/healthtopics/crs/unipre.">http://www.personalmd.com/healthtopics/crs/unipre.</a> <a href="mailto:shtml">shtml</a>
- CDC. Universal Precautions For Prevention Of Transmission Of HIV And Other Bloodborne Infections. (1987). Retrieved August 5, 2003 from: http://www.cdc.gov/ncidod/hip/blood/UNIVERSA.HTM



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SUBMIT & GENERATE CERTIFICATE	10. If you are exposed to blood or body fluid, wash affected area immediately but do not tell anyone, especially the supervisor.	9. Gloves are a good substitute for hand washing.	8. Gloves should always be worn when there is the potential to be exposed to blood/body fluids.	<ol><li>To help prevent the spread of infection, proper hand washing consists of washing your hands with soap under running water for at least 30 seconds, then drying.</li></ol>	6. Universal Precautions should be applied in the workplace when workers are exposed to blood and any body fluid excretions including: semen, vaginal secretions (menses), drooling (saliva), nasal discharge, feces and vomit.	<ol><li>Contact transmission of organisms can be direct, indirect or droplet.</li></ol>	4. Airborne transmission of organisms to a host is usually by the bite of ticks, fleas or mosquitoes.	<ol><li>The spread of infection requires 3 of the following elements: source of infecting organisms, a susceptible host, and a means of transmission for the organism.</li></ol>	<ol><li>Universal Precautions protect the both caregivers and the consumers.</li></ol>	<ol> <li>Universal precautions are simple infection control measures that reduce the risk of transmission of blood borne pathogens through exposure to blood or body fluids.</li> </ol>	Questions	be achieved on training post-tests in order to receive a Certificate of Completion.	Please answer the following 10 true and false questions to the best of your ability. Simply click in the true or false circle. Once you have completed the postest click the "Submit Test" button at the bottom of the name. You will then conclude and continue to false circle. Once you have completed the postest.	evenity.	Gounty:	If you work for a Mostal Determined in December 19 to		First Name:	Last Name:	Please fill out the information below so you will receive your grade and certificale of completion via e-mail.	Personal Info
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